

XXV. *Descriptions of some new Species of Coleoptera from China and Ceylon.* By J. O. WESTWOOD, Esq., F.L.S., &c.

[Read 4th April, 1853.]

AT the request of Major Champion I have drawn up descriptions of several of the more curious and interesting species of *Coleoptera* collected by himself during his residence in Ceylon and Hong Kong; and, as the chief of these belong to the division of the *Serricornes* of Latrielle, I have added descriptions of two other closely allied species from Ceylon and New Holland, in the collections of Dr. Templeton and W. W. Saunders, Esq. As Major Champion's Chinese collection was formed, for the most part, by himself whilst in company with our indefatigable Corresponding Member, J. C. Bowring, Esq., I also take the present opportunity of publishing some Notes on the Habits of a few of the *Coleoptera* of Hong Kong, which Mr. Bowring has been so kind as to forward to me. These notes relate to the *Cicindelidæ*, *Carabidæ*, and a species of *Sisyphus* which Mr. A. White has named *S. Bowringii*, and are as follow:—

“ The *Cicindelidæ* of Hong Kong, comprising as far as I have observed, some eight or nine species, appear to vary considerably in their habits; some frequenting trees and shrubs; others, like our English species, delighting in hot sandy places, rising, when disturbed, and after flying a short distance settling again in front of the intruder, continuing thus for a considerable time, while one at least would appear to move about at night. The species last alluded to is a remarkably elegant insect, closely allied to *C. Gyllenhalii*, the male being distinguished by a large metallic plate on each elytron, and is very rare, as during a residence of six years in China I have met with but a single pair; the female flew into my room at night, in the spring of 1842, and the male was taken in the early part of the present year, at dusk. Its nocturnal habits will no doubt account for its coming so seldom under notice. A fine species, forwarded by me to England in 1844, and described by Mr. White under the name of *C. (Heptodonta) posticalis*, is very common in Hong Kong during the summer months. In its great length of legs and cylindrical form it resembles *Tricondyla*, and its custom of constantly resorting to trees and shrubs, when disturbed, likewise brings that genus to our minds. *Heptodonta Cantori* (Hope), a closely allied species

forwarded from Canton by Dr. Cantor, is doubtless similar in its habits, but I have not had an opportunity of observing it alive. *Calochira aurulenta* is also a very common species, and may frequently be seen assembled in considerable numbers about the pabulum of cattle, lying in wait apparently for other insects which are attracted to the spot. It is less active than most *Cicindelæ*, and is easily captured. Besides the above, the present collection contains specimens of two *Cicindelæ* as yet I believe undescribed. They are named provisionally in my journal *Cic. lineata* and *Cic. marmorata*. The latter is remarkable for its close resemblance to an African insect, *Cic. Senegalensis*, the markings of the elytra being precisely similar. It is however to be distinguished by the greater length of its tibiæ and tarsi. A third species, which I had named *C. sex-punctata*, is apparently identical with *C. triguttata* from the Philippine Islands.

“*Tricondyla pulchripes*, which is not uncommon, frequents the Lichi tree (*Dimocarpus Lichi*), up and down the trunk and branches of which it courses with surprising agility in search of its prey. As might be expected from its large and prominent eyes, it is very vigilant, darting round to the opposite side of the trunk on the approach of an intruder, and ascending out of reach in a very short space of time. When hard pressed they fall to the ground and disappear among the dried leaves which cover the soil.

“A species of *Colliuris*, near *longicollis*, may not unfrequently be seen on flowers and shrubs along the margin of streams, but as it immediately takes flight when approached, and is very active, it is captured with difficulty.

“Many *Brachinidæ* are to be met with in Hong Kong; and during the last year or two I have come across several new and conspicuous species. *Helluo (Acanthogenius) astericus*, which is found under large stones on a clay soil, was rather plentiful during the past spring, being frequently in company with *Macrocheilus Bensoni*, which is a common insect. I first observed *H. astericus* in 1844, and did not again fall in with it until the present year. Shortly before my departure from Hong Kong I took a fine series of a new species of *Brachinus* of large size, *Brach. lugubris*, found in small societies under stones on the highest peaks of the island. They appear to affect the most elevated spots, and are plentiful under the piles erected during the ordnance survey of Hong Kong. This insect crepitates with considerable power, firing off several discharges with great rapidity, the volatile liquid burning

the hands and staining them in such a manner that the marks remain for many days.

“I have observed a singular point in the habits of the *Sisyphus*, to which Mr. White has done me the honour of affixing my name, viz. that both the male and female assist in *making* the balls of dung in which the egg is deposited, having taken many specimens during the present spring each with a pellet of dung between the middle and hind legs, which they are most unwilling to relinquish. This was before they commenced rolling the balls along to the holes they had previously dug.”

### Family CEBRIONIDÆ.

#### Genus CALLIRHIPIS, Latr., Guérin.

The species of this genus inhabiting the eastern hemisphere differ from those in America in being less elongated, with the head longer; the pronotum subtriangular and widened behind, and with the elytra only moderately convex. The species hitherto described from the former part of the world are—

1. *C. Dejeanii*, Latr. Amboyna and Java.
2. *C. Javanica*, Laporte. Java.
3. *C. orientalis*, Laporte. Java. (Male of No. 2?). And
4. *C. ruficornis*, G. R. Gray, An. K. Ins. pl. 39, fig. 2. New Holland.

Two additional species from Ceylon (of which I have only hitherto seen unique specimens) are now added.

#### 5. *Callirhipis Templetonii*, Westw. (Pl. XII. fig. 4.)

Fusco-nigra, luteo-sericans, capite et pronoto sub lente fere impunctatis, elytris opacis, punctis majoribus lineisque nonnullis subelevatis; antennis brunneis in mare longissime ramosis, pronoto subtrigono, postice supra subplano, utrinque impressionibus tribus in triangulum dispositis. (Mas.)

Long. corp. lin. 8.

Habitat in insula Taprobana. Mus. Templeton.

Caput parvum, subtriangulare. Clypeus deflexus, vertex antice parum excavatus. Palpi fulvi. Antennæ brunneæ, articulo 1mo nigro, articulis 3—10 singulatim ramum longissimum emittenti, ramo antico elytris e tertia parte breviori, articulo 11mo longitudine dimidii elytrorum. Prothorax subconicus, antice gibbus, postice fere planus et utrinque impressionibus tribus parum profundis notatus, disco sub lente punctatissimo.

Elytra opaca, subvelutina, ad basin latitudine basi pronoti æqualia, irregulariter punctata, intus humeros depressa, sutura lineisque quatuor longitudinalibus in singulo paullo elevatis subnitidis, 2da et 4ta postice conjuncta. Pedes piceo-fusci villosi. Corpus infra piceo-fuscum, villosum, membrana inter caput et prothoracem utrinque spina parva cornea obtusa plana armata; abdominis segmento 2do plaga media rotunda, 3tioque altera minori ovali transversa, setosa, notatis.

This species appears to differ from the following in the much less strongly punctured surface of the body, and the velvet-like coating of the elytra.

*Callirhipis Championii*, Westw. (Pl. XII. fig. 2.)

*C. piceo-nigra*, elytris magis castaneis, subnitidus punctatissimus, capite carina elevata inter antennis, clypeo verticeque antice concavis; antennis (articulis 2dis basalibus exceptis) brunneis, pronoto subtrigono, postice subplano utrinque impressionibus tribus in triangulum dispositis. (Fem.?)

Long. corp. lin. 9.

Habitat in insula Taprobana. Major Champion.

Caput nigrum, subnitidum, rude punctatissimum, ante oculos fere in rostrum angustum productum, vertico antice concavo, margine elevato et inter antennis carinam obtusam transversam formante, postice longitudinaliter impresso; clypeoque minus concavo. Labrum parvum, subtectum, antice rotundatum, setosum. Mandibulæ breves crassæ, apice acute falcatæ denteque parvo acuto in medio marginis interni armatæ. Maxillæ lobis duobus parvis angustis equalibus setosis terminatæ; palpi maxillares mediocres, satis crassi, articulo terminali subconico. Antennæ in individuo unico viso breves (longitudine latitudinem partis posticæ pronoti æquanti); articulis 3—10 laminam elongatam (singula circiter dimidium longitudinis totius antennæ æquali), articulis duobus basalibus nigris nitidis punctatis; reliquis brunneis velutinis, ultimo elongato laminato. Pronotum subtrigonum, antice convexum et declive, postice subplanum punctis minutis impressum, utrinque etiam impressionibus tribus rotundatis parum distinctis in triangulum dispositis. Elytra piceo-castanea, minute punctatissima, basi læviori intus humeros haud profunde impressa, singulo lineis quatuor elevatis longitudinalibus basin et apicem elytrorum haud attingentibus;

secunda et quarta (e sutura) postice conjunctis. Pedes et corpus infra piceo-nigra, subnitida, punctatissima, punctis minimis et magis approximatis. Oviductus? exsertus, acutus, corneus, apice bifidus.

Taken by Major Champion under a log of wood, at Galle, August 19th, 1846.

Pl. XII. fig. 2, Insectum magnitudine parum auctum; 2a, caput supra visum; 2b, idem a latere; 2c, labrum; 2d, mandibulæ; 2e, maxilla biloba; 2f, instrumenta labialia.

#### GENUS RHIPICERA, Latr.

(*Polytomus*, Dalm.; *Ptiocerus*, Hoffm.)

We have here another interesting genus of which the species are natives both of Australia and the New World; those however which inhabit New Holland have been formed by M. Guérin Meneville, in his Monograph of the genus, (Sp. et Icon. Anim. Artic. pl. 1,) into two sections, apart from those of America. They are—

S-G. AGATHORHIPIS, with the body elongate, the branches of the antennæ of the males large, and the tarsi with subelongated joints, the last joint of the maxillary palpi truncated, and the lamellæ of the basal joint of the tarsi much smaller than those of the three following joints.

1. *R. femorata*, Kirby (*mystacina*, Latr.) New Holland; Van Diemen's Land.

2. *R. Reichei*, Guér. Men. Swan River.

3. *R. mystacina*, Fab. New Holland.

4. *R. Drurii*, Westw. (*mystacina*, Drury). Sierra Leone??

5. *R. attenuata*, Westw. Swan River.

6. *R. pumilio*, Westw. Swan River.

S-G. OLIGORHIPIS, Guér. Men., with the body short and thick, the branches of the antennæ of the male moderate, and the tarsi thick and dilated.

7. *R. vetusta*, Gory in Icon. R. An. Ins. texte, p. 44. (*R. brunnea*, Westw.) New Holland. (Antennæ 18-articulatæ.)

8. *R. (Oligorhipis) tessellata*, W. W. Saunders. (Pl. XII. fig. 1.)

*R. nigra*, sub lente punctatissima, dense at irregulariter albido-setosa; prothorace 4-impresso, elytris castaneis punctatis albido-sericeo-maculatis lineisque elevatis obliquis notatis. (Fem.)

Long. corp. lin. 11.

Habitat in Australasia. In Mus. W. W. Saunders.

*Corpus* crassum, punctatissimum, albido dense setosum et inde opacum. *Caput* triangulare, vertice antice bilobo. *Mandibulæ* falcatae acutæ, dente parvo in medio marginis interni armatae. *Antennæ* breves, piceæ, 17-articulatae, articulis 4—16 intus sensim acute productis, articulis terminalibus longius productis. *Prothorax* convexus, angulis anticis obtusis, posticis acutis, disco in medio linea tenui longitudinali, impressionibusque duabus utrinque (postica majori et ovali) impresso. *Scutellum* rotundatum, albo-setosum. *Elytra* valde convexa, prothorace multo latiora, obscure castanea, sub lente punctatissima, maculisque numerosis irregularibus albo-setosis ornata, singulo lineis 5 elevatis subnitidis lævibus obliquis notato, Ima prope medium suturæ evanescenti, reliquis inter se versus apicem elytrorum conjunctis. *Corpus* infra cum pedibus nigrum, griseo-albido setosum.

Pl. XII. fig. 1, Insectum magnitudine paullo auctum; 1a, antenna; 1b, mandibula; 1c, 1d, tarsus, supra et a latere visus.

Fam. ELATERIDÆ.

Genus LICHAS, *Westw.*

*Corpus* oblongo-ovale, sub-convexum, setosum, minus rigidum quam in *Elateridis* genuinis. *Caput* antice planum, ad oculos in excavatione antica prothoracica receptum; angulis anticis elevatis et rotundatis; antennis sub partes elevatas ante oculos insertis; clypeo et labro cum lateribus mandibularum detectis, rostrum breve planum formantibus. *Labrum* planum, latitudine longitudinem ejus paulo superanti; setosum, angulis anticis rotundatis margine antico submembranaceo et parum emarginato. *Mandibulæ* parvæ corneæ, apice falcatae, et oblique truncatae, basi intus dilatato. *Maxillæ* inermes, longe setosæ bilobæ, lobo externo sub biarticulato, apice lato obliquo. *Palpi* maxillares articulo basali minuto, 2do et 3tio subæqualibus, 4to paullo latiori compresso, apice suboblique truncato. *Mentum* planum, subsemicirculare, setosum. *Labium* cordato-truncatum. *Palpi* labiales breves, 3-articulati, in scapum articulum simulantem, insidentes, articulo ultimo paullo majori et subsecuriformi. *Oculi* magni, globosi. *Antennæ* latitudine capitis fere triplo longiores, liberæ, articulis compressis subserratis; ultimo præcedenti paullo latiori subovali. *Prothorax* latior quam longus, subconicus, angulis posticis lateribus acutis et paullo reflexis; lateribus subtus canaliculatis; prosternum pone coxas anticæ acute retro

porrectum, et in cavitate parva mesosterni receptum. *Scutellum* parvum, fere rotundatum. *Elytra* oblongo-ovalia, subconvexa, sub lente punctulatissima, luteo-setosa, spatiis multis irregularibus maculiformibus nudis. *Pedes* graciles, satis elongati, simplices, setosi, calcaribus minutis 2, 2, 2. *Tarsi* simplices, articulis 4 basalibus subtus spongiosis setosis. *Ungues* simplices, longi acuti, pseudonychia unica setosa instructi.

Notwithstanding the very dissimilar facies of the type of this genus to those of the family *Elateridæ*, the absence of the prosternal grooves for the reception of the antennæ, the far less rigid texture of the body, and the comparatively shorter development of the prosternal mucro, I refer this remarkable insect to the last-named family, although in several of these respects it bears a much greater analogy to such genera as *Atopa* and *Cebrio*. The style of colouring is very peculiar, and has suggested the specific name.

*Lichas funebris*, Westw. (Plate XII. fig. 3.)

Nigra, nitida, sub lente punctatissima, cinereo-setosa; elytrorum punctulis in lineas nonnullas versus suturam alterasque paucas discoidales distantes dispositis, maculisque numerosis irregularibus discoidalibus setarum nudis notatis; corpore infra nigro, cinereo-setoso, abdomine magis piceo, lateribus nigro-submaculatis.

Long. corp. lin. 10—12.

Habitat in China, prope Hong Kong.

In Mus. nostr. Communicavit D. Champion.

Major Champion informs me that his specimens of this insect were captured by Mr. Killeff, on *Camellia assimilis*, Champ., in the month of June, at Hong Kong and Victoria Peak.

Pl. XII. fig. 3, Insectum vix auctum; 3a, caput supra visum; 3b, labrum et mandibulæ; 3c, maxilla; 3d, instrumenta labialia; 3e, tarsus; 3f, unguis cum pseudonychia; 3g, corpus subtus visum.

## Fam. TELEPHORIDÆ.

Genus EUGEUSIS, Westw.

*Corpus* parvum, oblongum, supra depressum, coriaceum, punctatum, setulosum. *Caput* magnitudinis ordinariæ, margine antico pronoti haud occultatum. *Oculi* mediocres. *Labrum* parvum, angulis anticis rotundatis. *Mandibulæ* parvæ, falcatæ, acutæ. *Maxillæ* minutæ, submembranacæ, lobo parvo ob-

longo inermi. *Palpi* maxillares 4-articulati, articulo ultimo maximo oblongo plano, apice rotundato setoso. *Mentum* parvum, subquadratum? *Labium* apice oblique rotundatum. *Palpi* labiales 3-articulati, articulo ultimo maximo oblongo, plano setoso, apice oblique rotundato. *Antennæ* graciles, longitudine elytrorum 11-articulatæ, articulis 3—10 ramum tenuem elongatum setosum singulatim emittentibus; ultimo elongato. *Prothorax* transversus, antice attenuatus, marginibus lateralibus ante angulum posticum submarginatis, angulis acutis. *Elytra* oblonga, depressa, fere parallela, apice sensim rotundata, dorso lineis elevatis notata. *Pedes* graciles, simplices, tarsorum articulo penultimo parvo bilobo.

The immense development of the palpi of the type of this genus, together with its exposed head and branched antennæ, give it quite a peculiar character. I have, however, seen but a single specimen, evidently a male; and can, therefore, only conjecture that the female will possess simple palpi and antennæ, in which case it will bear considerable resemblance to the group of *Telephoridæ* named *Silis*. It appears also to possess a certain relation to *Amydetes* in the texture of the elytra, and their raised longitudinal lines.

*Eugeusis palpator*, Westw. (Plate XII. fig. 5.)

*E. rufo-fulva*, opaca, punctata, fulvo-setosa; antennis, palpis et dimidio apicali elytrorum nigris.

Long. corp. lin. 3.

Habitat in insula Taprobanæ. Major Champion.

Corpus fulvum, parum molle, dorso magis coriaceo. Caput subquadratum, supra planum, vel parum concavum, punctatum, inter antennæ transverse elevatum; clypeo parvo, transverso, depresso. Oculi mediocres, prominuli, nigri. Labrum parvum, margine antico paullo curvato setoso. Mandibulæ elongatæ, graciles, falcatæ, acutæ, nigrae. Maxillæ lobo parvo unico terminali. *Palpi* maxillares et labiales picei, velutini, compressi, articulo ultimo elongato-spatulato. Antennæ piceæ, longitudine elytrorum articulorum basaliū apicibus rufo-piceis, articulis 3—10 ramum (articulo dimidio longiorem) setosum emittentibus. *Prothorax* latior quam longus, postice latior, lateribus rotundatis, versus basin utrinque paullo incisus, angulis posticis prominulis; margine postico paullo sinuato, depresso, disco subdepresso linea tenui media longitudinali punctisque minutissimis numerosissimis impresso. Scutellum apice rotundatum. *Elytra* punctatissima,



singulo lineis quatuor longitudinalibus gracilibus parum elevatis, fulva, dimidio apicali nigro, sutura et lateribus tenuiter fulvis. Corpus infra pallide fulvum. Pedes fulvi, femoribus supra articuloque 4to tarsorum fuscis.

Taken by Major Champion at Narrawille, near Galle, in Ceylon, in the month of August, 1846.

Pl. XII. fig. 5, Insectum valde auctum; 5a, caput antice visum; 5b, mandibulæ et labrum; 5c, maxilla; 5d, labium et palpi labiales; 5e, tarsus.

### Fam. LONGICORNES.

#### Genus CLYTELLUS, *Westw.*

*Corpus* parvum, convexum, medio valde constrictum. *Caput* parvum verticale, partibus oris parvis. *Labrum* breve transversum, angulis anticis rotundatis ciliatis. *Mandibulæ* parvæ subtriangulares, apice acutæ. *Maxillæ* minutæ, basi extus elongatæ bilobæ, lobo externo apice latiori integro longe ciliato. *Palpi* maxillares minuti, articulis 3bus basalibus brevibus; ultimo magno obconico, apice recte truncato. *Mentum* breve transversum, margine antico in medio parum rotundato, angulis anticis lateralibus extus productis. *Labium* breve, profunde emarginatum. *Palpi* labiales maxillaribus magnitudine et forma similes. *Antennæ* corpore paullo breviores tenues, 11-articulatæ, simplices. *Oculi* parvi, rotundati, integri. *Prothorax* elongatus, convexus, antice capitis latitudine, lateribus inermibus paullo rotundatis, versus partem posticam profunde constrictus. *Elytra* brevia, valde convexa, ante medium parum constricta, pone medium paullo dilatata et inflata, versus basin scabro et tuberculis duobus acutis reflexis instructa. *Pedes* longi, femoribus pone medium incrassatis. *Tibiæ* et tarsi simplices.

The curious little *Longicorn* beetle, which is the type of this genus, has more the appearance of an ant or female *Methoca* than that of a Coleopterous insect. It appears to be the Eastern representative of the *Enoplophoræ* of the New World.

#### *Clytellus methocoides.* (Plate XII. fig. 6.)

*C.* cyaneo-niger, pronoto striato-punctato, elytris basi carneo-castaneis rude oblongo-punctatis, ultra basin glaberrimis nigro-cyaneis nitidissimis lævibus, apicibus albo-hirtis.

Long. corp. lin. 2 vel 3.

Habitat prope Hong Kong, China. Major Champion.

Caput breve; transversum, facie sub antennis verticale tenuissime punctata, subtus semicirculariter terminata, clypeo et mandibulis brevibus crassis semicirculo inclusis, labro minuto ciliato. Antennæ fere longitudine corporis, graciles simplices nigrae. Prothorax elongatus, prope basin valde constrictus, parte antica ovata valde gibbosa, punctis elongatis seu striolis gracilibus numerosis impressus, griseo parum setosus; parte pone constrictionem brevi subannuliformi transversim elevata. Elytra capite et prothorace paullo longiora; basi prothoracis partis latioris latitudine, in medio sensim dilatata ovata, valde convexa glaberrima, basi carneo-castanea rude oblongo-punctata singuloque tuberculo magno elevato apice acuto reflexo, instructo, ultra basin punctatam ovalia, valde convexa glaberrima cyaneo-nigra, impunctata, apicibus albo-setosis. Pedes cyaneo-nigri. Corpus infra nigrum, pectore pube grisea dense vestito.

Taken by Major Champion on *Eryobotria Chinensis*, Champ., on Victoria Peak, near Hong Kong, April 6th, 1849.

Pl. XII. fig. 6, Insectum valde auctum; 6a, idem a latere visum; 6b, labrum; 6c, mandibula; 6d, maxilla; 6e, instrumenta labialia.

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XXVI. *On the Insects used for Food by the Indians of the Amazon.* By A. R. WALLACE, Esq.

[Read 6th June, 1853.]

ANNULOSE animals have found little favour as articles of food, and those which have come into use in one country are often despised in another. We ourselves consume quantities of *Crustacea*, but would be loth to eat the locusts of the East or the fat butterflies of Australia; while the palm worms of the West Indies, though highly esteemed there, have not yet been introduced at the tables of our epicures.

The Indians of the Amazon are less fastidious in their tastes, for while turtles, alligators, lizards, snakes and frogs are all common articles of food, some species of insects and other *Annulosa* furnish them with their greatest luxuries. Six different orders—*Hymenoptera*, *Neuroptera*, *Homoptera*, *Coleoptera*, *Aptera* and